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SEQUENCE LISTING

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ORIGINALLY FILED

<110> Barber, Elizabeth K
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RECEIVED

AUG 22 2002

TECH CENTER 1600/2900

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Thr Gln Val Cys Thr Ile Ile Arg Asn Thr Pro Lys Pro Lys
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Phe Ser Met Thr Pro Val Ala Ser Asn Ile Lys Leu Ile Leu			
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Thr Asn Asn Val Trp Leu His Gly Phe Ala Ser Ser Trp			
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Lys Leu Val Lys Asn Gln Thr Leu Leu Cys Thr Pro Ser Met Gln Leu			
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Glu Thr Glu Cys Tyr Leu Ser Ala Pro Phe Val Lys Ser Val Phe			
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Ile Tyr Ile Tyr Ile Gly Asn Leu Asn Met Lys Lys Glu Gln Asn Lys
35 40 45

Cys Phe Thr Thr Pro Asp Ser Arg Met Val Phe Ile Ile Phe Ile Gln
50 55 60

Gln Arg Gly Leu Asp Ser Lys Ser Leu Gln Glu Ile Asn Leu Tyr Phe
65 70 75 80

Cys Glu Gly Phe Tyr Thr Ser Met Gln Leu Tyr Lys Lys Val Ile Arg
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Arg	Asn	Leu	Val	Leu	Ile	Tyr	Gly	Ile	Leu	Leu	Ile	Tyr	Ile	Tyr	Ile	35	40	45	
Gly	Asn	Leu	Asn	Val	Ala	Arg	His	Phe	Ser	Met	Lys	Thr	Pro	Val	Ala	50	55	60	
Arg	Ser	Asn	Ile	Lys	Leu	Ile	Leu	Thr	Asn	Asn	Val	Lys	Trp	Leu	His	65	70	75	80
Lys	Lys	Gly	Phe	Ala	Ser	Ser	Trp	Lys	Leu	Val	Lys	Asn	Gln	Thr	Leu	85	90	95	
Leu	Cys	Thr	Pro	Ser	Met	Gln	Leu	Leu	Cys	Cys	Leu	His	Pro	Glu	Met	100	105	110	
Gly	Asn	Asp	Phe	Pro	Asn	Gly	Lys	Glu	Thr	Glu	Arg	Cys	Tyr	Leu	Ser	115	120	125	
Ala	Pro	Phe	Val	Lys	Ser	Val	Phe	Leu	Ser	Leu	Cys	Phe	Pro	Gly	His	130	135	140	
Asn	Val	Gly	Ser	Leu	Phe	His	Met	Ala	Asp	Asp	Leu	Gly	Arg	Ala	Met	145	150	155	160
Glu	Ser	Leu	Val	Ser	Val	Met	Thr	Asp	Glu	Glu	Gly	Ala	Glu	Lys	Met	165	170	175	

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 Lys Arg Ile Arg Gln Lys Glu Phe Thr Arg Asn Lys Ser Ile Phe Leu
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 225 230 235 240
 Gln Lys Ser Tyr Lys Lys Thr Thr Cys Lys Ile Leu Ile Ala Lys Lys
 245 250 255
 Leu Ala Ile Ser Leu Tyr Gly Thr His Phe Gly Leu Phe Lys Asn Leu
 260 265 270
 Lys Gln Leu Lys Arg Lys Asn Tyr Lys Gly Lys Arg Lys Lys Arg Asn
 275 280 285
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 Cys Lys Leu Ile

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 Ile Ile Ile Phe Asn Pro Ser Lys Ser Arg Glu Lys Ile Ala Thr Ser
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 acc ata gcc tca gaa gca agc caa cag cct gaa aca gct ttg aaa tga 144

Thr Ile Ala Ser Glu Ala Ser Gln Gln Pro Glu Thr Ala Leu Lys
35 40 45

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Lys Val Gly Val Ala Val Met Val Ala Val Ile Met Val Thr Asp Gly
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Gly Arg Asn Ser Met Arg Ser Arg Val
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				20					25					30

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Glu	Glu	Gly	Ala	Glu
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        -60                -55                -50

acc tcc acc ata gcc tca gaa gca agc caa cag cct gaa aca gct ttg -96
Thr Ser Thr Ile Ala Ser Glu Ala Ser Gln Gln Pro Glu Thr Ala Leu
        -45                -40                -35

aaa tga aaa gtt ggt gtg gcg gtg atg gtg gca gtg ata atg gtg acc -48
Lys      Lys Val Gly Val Ala Val Met Val Ala Val Ile Met Val Thr
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Trp Val Leu Val Met Val Val Val Val Lys Val Val Met Asp Gly
        -15                -10                -5

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Val Val      Leu Ile Val Lys Lys Met Phe Val Asn Thr Ser Arg Glu
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Ile Met Glu Tyr Ser Cys Ser Asp Arg Asn Leu Val Leu Ile Tyr Gly
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Thr Asn Asn Val      Trp Leu His      Gly Phe Ala Ser Ser Trp
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Gly Phe Tyr Asn Ile His Thr Thr Lys Arg Ile Arg Gln Glu Phe		
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Arg Phe Gln Phe Leu Ser Leu Leu Leu Phe Cys Gln Trp Gln		
	215	220 225
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Val Leu His Val Tyr Ala Ile Val Gln Lys Ser Tyr Lys Lys Thr Thr		
	230	235 240
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Gln Val Cys Thr Ile Ile Arg Asn Thr Pro Lys Pro Lys Gly Arg		
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<400> 56

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				20					25				30	
Asn	Val	Ala	Arg	His	Phe	Ser	Met	Lys	Thr	Pro	Val	Ala	Arg	Ser
				35					40				45	
Asn	Ile	Lys	Leu	Ile	Leu	Thr	Asn	Asn	Val	Lys	Trp	Leu	His	Lys
				50					55				60	

Lys Gly Phe Ala Ser Ser Trp Lys Leu Val Lys Asn Gln Thr Leu	65	70	75
Leu Cys Thr Pro Ser Met Gln Leu Leu Cys Cys Leu His Pro Glu	80	85	90
Met Gly Asn Asp Phe Pro Asn Gly Lys Glu Thr Glu Arg Cys Tyr	95	100	105
Leu Ser Ala Pro Phe Val Lys Ser Val Phe Leu Ser Leu Cys Phe	110	115	120
Pro Gly His Asn Val Gly Ser Leu Phe His Met Ala Asp Asp Leu	125	130	135
Gly Arg Ala Met Glu Ser Leu Val Ser Val Met Thr Asp Glu Glu	140	145	150
Gly Ala Glu Lys Met Phe Tyr Asn Ser Arg Phe Pro His Gly Phe	155	160	165
Tyr Asn Ile His Thr Thr Lys Arg Ile Arg Gln Lys Glu Phe Thr	170	175	180
Arg Asn Lys Ser Ile Phe Leu Arg Arg Val Val Val Leu Tyr Cys	185	190	195
Arg Phe Gln Lys Phe Leu Ser Leu Leu Leu Phe Cys Lys Gln Trp	200	205	210
Gln Val Leu His Val Tyr Ala Ile Val Gln Lys Ser Tyr Lys Lys	215	220	225
Thr Thr Cys Lys Ile Leu Ile Ala Lys Lys Leu Ala Ile Ser Leu	230	235	240
Tyr Gly Thr His Phe Gly Leu Phe Lys Asn Leu Lys Gln Leu Lys	245	250	255
Arg Lys Asn Tyr Lys Gly Lys Arg Lys Lys Arg Asn Gly Gln Val	260	265	270
Val Lys Leu Arg Thr Gln Val Cys Thr Ile Ile Arg Asn Thr Pro	275	280	285
Lys Pro Lys Arg Gly arg Asn Ser Met Arg Ser Arg Val Arg Cys	290	295	300

Lys Leu Ile

<210> 57
 <211> 111
 <212> DNA

<213> human

<400> 57

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<400> 58

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